



# Electronic Filing System (EFS) Data

## Electronic Patent Application Submission

### USPTO Use Only

EFS ID: 57194  
Application ID: 10686486 

Title of Invention: APPARATUS FOR ELECTRO CHEMICAL DEPOSITION OF COPPER METALLIZATION WITH THE CAPABILITY OF IN-SITU THERMAL ANNEALING

First Named Inventor: ROBIN CHEUNG

Domestic/Foreign Application: Domestic Application

Filing Date: 2003-10-15

Effective Receipt Date: 2004-03-16

Submission Type: Information Disclosure Statement

Filing Type:

Confirmation number: 8014

Attorney Docket Number: AMAT3421C2

Total Fees Authorized: 180.0

Payment Category: Deposit Account

Deposit Account Number: 200782

Deposit Account Name: N. ALEXANDER NOLTE

Access Code: \*\*\*\*

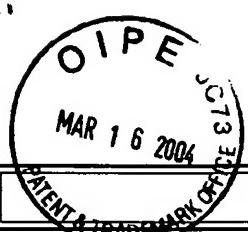
RAM Payment Status: RAM success

RAM User ID: EFSPROD

RAM Accounting Date: 2004-03-16

RAM Sequence Number: 15

Digital Certificate Holder: cn=N. Alexander Nolte,ou=Registered Attorneys,ou=Patent and Trademark Office,ou=Department of Commerce,o=U.S. Government,c=US  
Certificate Message Digest: 7667294b32627bf3f3c3de612810de5f6e7f4163

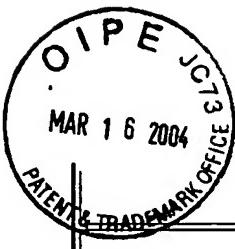


## TRANSMITTAL

Electronic Version v1.1

Stylesheet Version v1.1.0

Title of Invention	APPARATUS FOR ELECTRO CHEMICAL DEPOSITION OF COPPER METALLIZATION WITH THE CAPABILITY OF IN-SITU THERMAL ANNEALING	
Application Number:	10/686486	
Date:	2003-10-15	
First Named Applicant:	ROBIN CHEUNG	
Confirmation Number:	8014	
Attorney Docket Number:	AMAT3421C2	
<p>I hereby certify that the use of this system is for OFFICIAL correspondence between patent applicants or their representatives and the USPTO. Fraudulent or other use besides the filing of official correspondence by authorized parties is strictly prohibited, and subject to a fine and/or imprisonment under applicable law.</p> <p>I, the undersigned, certify that I have viewed a display of document(s) being electronically submitted to the United States Patent and Trademark Office, using either the USPTO provided style sheet or software, and that this is the document(s) I intend for initiation or further prosecution of a patent application noted in the submission. This document(s) will become part of the official electronic record at the USPTO.</p>		
Submitted by:	Elec. Sign.	Sign. Capacity
Mr. N. ALEXANDER NOLTE Registered Number: 45689	[N. ALEXANDER NOLTE]	Attorney
Documents being submitted	Files	
us-fee-sheet	AMAT3421C2NAN-usfees.xml	
	us-fee-sheet.xsl	
	us-fee-sheet.dtd	
us-ids	AMAT3421C2NAN-usidst.xml	
	us-ids.dtd	
	us-ids.xsl	



Comments

NO FEE REQUIRED - FILED IDS BEFORE FIRST OA



## FEE TRANSMITTAL

Electronic Version v08  
Stylesheet Version v08.0

Title of Invention	APPARATUS FOR ELECTRO CHEMICAL DEPOSITION OF COPPER METALLIZATION WITH THE CAPABILITY OF IN-SITU THERMAL ANNEALING		
Application Number:	10/686486		
Date:	2003-10-15		
First Named Applicant:	ROBIN CHEUNG		
Attorney Docket Number:	AMAT3421C2		
Art Unit:	1753		
<b>TOTAL FEE AUTHORIZED \$180</b>			
Patent fees are subject to annual revisions on or about October 1st of each year.			
<b>BASIC FILING FEE</b>			
Fee Description	Fee Code	Amount \$	Fee Paid \$
Submission Of Information Disclosure Stmt Fee	1806	180	180
<b>AUTHORIZED BILLING INFORMATION</b>			
The commissioner is hereby authorized to charge indicated fees and credit any overpayments to:			
Deposit account number: 200782			
Access Code	*****		
Deposit name:	Moser Patterson Sheridan		
Deposit authorized name:	N. ALEXANDER NOLTE		
Signature:	\N. ALEXANDER NOLTE\		
Date (YYYYMMDD):	2004-03-16		



## FEE TRANSMITTAL

Electronic Version v08

Stylesheet Version v08.0

Title of Invention	APPARATUS FOR ELECTRO CHEMICAL DEPOSITION OF COPPER METALLIZATION WITH THE CAPABILITY OF IN-SITU THERMAL ANNEALING		
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Art Unit:	1753		
<b>TOTAL FEE AUTHORIZED \$180</b>			
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<b>BASIC FILING FEE</b>			
Fee Description	Fee Code	Amount \$	Fee Paid \$
Submission Of Information Disclosure Stmt Fee	1806	180	180
<b>AUTHORIZED BILLING INFORMATION</b>			
The commissioner is hereby authorized to charge indicated fees and credit any overpayments to:			
Deposit account number:	200782		
Access Code	*****		
Deposit name:	Moser Patterson Sheridan		
Deposit authorized name:	N. ALEXANDER NOLTE		
Signature:	\N. ALEXANDER NOLTE\		
Date (YYYYMMDD):	2004-03-16		



## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of Invention	APPARATUS FOR ELECTRO CHEMICAL DEPOSITION OF COPPER METALLIZATION WITH THE CAPABILITY OF IN-SITU THERMAL ANNEALING
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Application Number: 10/686486



Confirmation Number: 8014

First Named Applicant: ROBIN CHEUNG

Attorney Docket Number: AMAT3421C2

Art Unit: 1753

Search string: ( 3649509 or 3727620 or 3770598 or 4027686  
or 4092176 or 4110176 or 4113492 or 4315059  
or 4326940 or 4336114 or 4376685 or 4405416  
or 4428815 or 4435266 or 4489740 or 4510176  
or 4518678 or 4519846 or 4568431 or 4693805  
or 4732785 or 4789445 or 4816098 or 4816638  
or 5039381 or 5055425 or 5069760 or 5092975  
or 5100516 or 5155336 or 5162260 or 5222310  
or 5224504 or 5230743 or 20010030101 or  
20020000271 or 20020022363 or 20020029961  
or 20020037641 or 20020074233 ).pn.

### US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
	1	3649509	1972-03-14	MORAWETZ, ET AL.			
	2	3727620	1973-04-17	ORR			
	3	3770598	1973-11-06	CREUTZ			
	4	4027686	1977-06-07	SHORTES, ET AL.			
	5	4092176	1978-05-30	KOZAI, ET AL.			
	6	4110176	1978-08-29	CREUTZ, ET AL. (DECEASED)			
	7	4113492	1978-09-12	SATO, ET AL.			
	8	4315059	1982-02-09	RAISTRICK, ET AL.			
	9	4326940	1982-04-27	ECKLES, ET AL.			
	10	4336114	1982-06-22	MAYER, ET AL.			



11	4376685	1983-03-15	WATSON
12	4405416	1983-09-20	RAISTRICK, ET AL.
13	4428815	1984-01-31	POWELL, ET AL.
14	4435266	1984-03-06	JOHNSTON
15	4489740	1984-12-25	RATTAN, ET AL.
16	4510176	1985-04-09	CUTHBERT, ET AL.
17	4518678	1985-05-21	ALLEN
18	4519846	1985-05-28	AIGO
19	4568431	1986-02-04	POLAN, ET AL.
20	4693805	1987-09-15	QUAZI
21	4732785	1988-09-15	QUAZI
22	4789445	1988-12-06	GOFFMAN, ET AL.
23	4816098	1989-03-28	DAVIS, ET AL.
24	4816638	1989-03-28	UKAI, ET AL.
25	5039381	1991-08-13	MULLARKEY
26	5055425	1991-10-08	LEIBOVITZ, ET AL.
27	5069760	1991-12-03	TSUKAMOTO, ET AL.
28	5092975	1992-03-03	YAMAMURA, ET AL.
29	5100516	1992-03-30	NISHIMURA, ET AL.
30	5155336	1992-10-13	GRONET, ET AL.
31	5162260	1992-11-10	LEIBOVITZ, ET AL.
32	5222310	1993-06-29	THOMPSON, ET AL.
33	5224504	1993-07-06	THOMPSON, ET AL.
34	5230743	1993-07-27	THOMPSON, ET AL.

## US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
	1	20010030101	2001-10-18	BERNER, ET AL.			
	2	20020000271	2002-01-03	RITZDORF, ET AL.			
	3	20020022363	2002-02-21	RITZDORF, ET AL.			
	4	20020029961	2002-03-14	DORDI, ET AL.			
	5	20020037641	2002-03-28	RITZDORF, ET AL.			
	6	20020074233	2002-06-20	RITZDORF, ET AL.			



Signature

Examiner Name	Date